

## 04Q2m2\_casu\_deliverables.xls

WP	CASU WP name /sub task / 04Q2m2 deliverables	V.I.F.	name	date	end of month report	%sub	task
#							
	<b>1 Management and definition of project responsibilities</b>		<b>3.0</b>				
	<b>1.1 report to VISTA, UKIDSS, JAC, ATC, GSC</b>						<b>62</b>
	provide fortnightly meeting minutes, monthly reports on progress + quarterly review reports and planning		STH,MJI	1/5/04	minutes and report produced	10	
			STH,MJI	1/6/04	minutes and report produced. STH in conjunction with JMS implemented earned value progress monitoring	50	
	prepare for and present paper at SPIE meeting		MJI	1/5/04	registered	10	
			MJI	1/6/04	paper written and submitted	50	
	<b>1.2 interface control document between CASU and JAC</b>				completed		<b>100</b>
	<b>1.3 interface control document between CASU and WFAU</b>				completed		<b>100</b>
	<b>1.4 define WFCAM data structures and FITS headers</b>						<b>90</b>
	check SDF example for completeness		JRL	1/5/04	received and checked example SDF file, finding a few minor typos in the header keywords.	100	
	use to generate test FITS header		JRL	1/5/04	test FITS file generated and report sent to JAC - awaiting response	50	
			JRL	1/6/04	awaiting response	50	
	<b>1.5a define WFCAM observing protocols</b>						<b>75</b>
	monitor and help update MSB guidelines		MJI, STH	1/5/04	CASU to attend UKIDSS meeting next week.	0	
			MJI, STH	1/6/04	STH attended UKIDSS survey heads meeting.	50	
	check first pass survey MSBs		MJI, STH	1/5/04	ditto	0	
			MJI, STH	1/6/04	Detailed discussions held with Hambly, Edge and Lucas on GCS, DXS and GPS MSBs	50	
	<b>1.5b define VISTA observing protocols</b>						
	help define science and user requirements		MJI, PSB	1/5/04	more detailed feedback on the UK URD passed on to WJS	10	
			MJI, PSB	1/6/04	more comments on UK URD forwarded to WJS	50	
	<b>1.6a liaise with UKIDSS&amp;JAC on WFCAM obs strategy, surveys planning</b>						<b>62</b>
	monitor progress		DWE	1/5/04	nothing to report	0	
			DWE	1/6/04	comments collated on JAC Survey Operational Model document. to be forwarded to JAC. STH attended UKIDSS meeting, trialed SDT and feedback to Folger. MJI attended UKIRT board meeting and presented report.	50	
	<b>1.6b liaise with Project Scientist on VISTA observing strategy &amp; survey planning</b>						
	monitor progress		PSB	1/5/04	no progress	10	
			PSB	1/6/04	nothing to report	50	
	<b>1.7a liaise with VDUC on VDFS products for WFCAM</b>						<b>62</b>
	monitor progress		STH,MJI	1/5/04	MJI preparing talk for VDUC meeting	10	
			STH,MJI	1/6/04	CASU attended and MJI gave to talk to VDUC.	50	
	<b>1.7b liaise with VDUC on VDFS products for VISTA</b>						
	monitor progress		MJI,STH	1/5/04	MJI preparing talk for VDUC meeting	10	
			MJI,STH	1/6/04	MJI presented talk at VDUC 4/5/04	50	
	<b>1.8a liaise with UKIDSS and JAC on survey progress DB</b>		JRL		paused		<b>62</b>
	<b>1.9 system documentation</b>						<b>62</b>

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	update and maintain web pages of system docs	DWE	1/5/04	CASU document numbering system clarified and report circulated to group for comments	10	
		DWE	1/6/04	document www pages updated along with document numbering explanation	50	
<b>2 ESO VISTA software interface deliverables and documentation 4.0</b>						
<b>2.1 VDFS user requirements document</b>						<b>60</b>
	compile RID response document	PSB	1/5/04	PSB,MJI,JRL busy helping compile RID responses	50	
		PSB	1/6/04	Awaiting final version of RIXs	50	
	prepare for and attend PDR, update docs as appropriate	PSB	1/5/04	rephrasing relevant bits of PDR docs	10	
		PSB	1/6/04	attended PDR. some updates made. Awaiting final version of RIXs	50	
<b>2.2 data reduction specification document</b>						<b>60</b>
	compile RID response document	PSB	1/5/04	PSB,MJI,JRL busy helping compile RID responses	50	
		PSB	1/6/04	Awaiting final version of RIXs	50	
	prepare for and attend PDR, update docs as appropriate	PSB	1/5/04	rephrasing relevant bits of PDR docs	10	
		PSB	1/6/04	attended PDR. some updates made. Awaiting final version of RIXs	50	
<b>2.3 calibration plan document</b>						<b>60</b>
	compile RID response document	PSB	1/5/04	PSB,MJI,JRL busy helping compile RID responses	50	
		PSB	1/6/04	Awaiting final version of RIXs	50	
	prepare for and attend PDR, update docs as appropriate	PSB	1/5/04	rephrasing relevant bits of PDR docs	10	
		PSB	1/6/04	attended PDR. some updates made. Awaiting final version of RIXs	50	
<b>2.5 ICD ESO/VPO</b>						<b>60</b>
	update DID and write first draft of DID doc for FDR	PSB	1/5/04	No progress	0	
		PSB	1/6/04	no progress	0	
<b>2.8 liaise with VISTA IR camera development team</b>						<b>62</b>
	continue liaising	PSB	1/5/04	nothing to report	10	
		PSB	1/6/04	nothing to report	50	
<b>3 Pipeline infrastructure and pipeline progress monitoring tools 3.5</b>						
<b>3.1 interactive tools for running pipeline</b>		JRL		paused		<b>50</b>
<b>3.2 high level scripts to interrogate headers</b>		STH, JMI		paused		<b>50</b>
<b>3.3 automatic progression of results to web pages</b>		STH, JMI		paused		<b>50</b>
<b>3.6 group documentation on pipeline infrastructure</b>						<b>55</b>
	stress test documentation and update as necessary	JRL	1/5/04	no progress	0	
			1/6/04	no progress	0	
<b>4 Set up and manage raw science archive 0.0</b>						
<b>5 Set up and manage data processing system hardware 2.0</b>						
<b>5.2 buy hardware and install</b>		MTB		paused		<b>70</b>
<b>5.3 integrating and testing</b>		MTB		paused		<b>55</b>
<b>5.4 Manage day-to-day maintenance and upgrades</b>		MTB		paused		<b>25</b>
<b>6 Run standard pipeline 2.5</b>						
<b>7 Development work for summit pipeline 1.0</b>						
<b>7.1 Interface test pipelines in ORAC-DR</b>		JRL		completed		<b>100</b>

<b>7.2a</b>	<b>implement WFCAM pipeline at summit</b>					<b>75</b>
	demonstrate catalogue and non-catalogue DQCs	JRL	1/5/04	some engineering data received, but none appropriate for these sorts of tests.	0	
		JRL	1/6/04	no progress due to lack of suitable test data	0	
<b>7.3a</b>	<b>documentation for ORAC-DR interface</b>					<b>60</b>
	update and deliver documentation as development proceeds	JRL	1/5/04	new recipes being written for WFCAM. documentation updated to reflect additions to the CVS repository	50	
		JRL	1/6/04	more new documentation added as new software added to the CVS repository	50	
<b>7.4a</b>	<b>upgrade and maintain summit pipeline WFCAM</b>					<b>15</b>
	upgrade and maintain	JRL	1/5/04	new pipeline recipes are being written in anticipation of commissioning	10	
		JRL	1/6/04	further work on commissioning recipes	10	
<b>8 Development and testing of standard 2d processing 4.0</b>						
<b>8.1a</b>	<b>further development of standard pipeline for WFCAM</b>					<b>80</b>
	finish implementing new version of imcore to include full param set	JRL	1/5/04	some debugging done	10	
		JRL	1/6/04	MJI has completed more debugging of prototype version	10	
<b>8.2a</b>	<b>liaison with WFCAM development team</b>					<b>30</b>
	continue discussion on reset anomaly, crosstalk and linearity	JRL	1/5/04	no progress	0	
		JRL	1/6/04	much discussion though limited progress	10	
	assess engineering test data for above problems and report	JRL	1/5/04	received some WFCAM science device test data and carried out a series of checks to measure reset anomaly, readout noise, gain and non-linearity. Ongoing - initial report in CASU minutes	10	
		JRL	1/6/04	plausible linearity parameters have been calculated for some of the test data. Further work needs to be done to quantify these better, but really need better data	50	
<b>8.2b</b>	<b>liaison with Project Scientist &amp; VISTA development team</b>					
	develop and test methodology for non-linearity correction, write report	MJI	1/5/04	devised method, wrote report, wrote test software, trialled it successfully		
		MJI	1/6/04	updated report. tested for multivalued cases. devised saturation strategies.	100	
<b>8.3a</b>	<b>partake in planning WFCAM commissioning observations</b>					<b>80</b>
	continue liaising with ATC/JAC	STH	1/5/04	nothing to report	10	
		STH	1/6/04	JAC have produced observing strategy document. UKIDSS survey heads meeting discussed WFCAM commissioning - UKIDSS were asked to read proposed plan and comment. UKIDSS implementation group scheduled for 9th June at IoA.	50	
<b>8.3b</b>	<b>partake in planning VISTA commissioning observations</b>					
	liaise and discuss with VISTA PS	STH	1/5/04	nothing to report	10	
		STH	1/6/04	nothing to report	50	
<b>8.6</b>	<b>documentation for 2D processing software</b>					<b>50</b>
	updates docs as necessary and as a result of feedback	JRL	1/5/04	no progress	0	
		JRL	1/6/04	no progress	0	
<b>8.7</b>	<b>Comparison between automated and manual data products</b>					<b>75</b>
	finish pipeline processing of FIRES data	STH	1/5/04	final sample of FIRES data received - about to be processed	10	
		STH	1/6/04	no progress	10	
	compare FIRES with published results and write report	STH	1/5/04	no progress	0	
		STH	1/6/04	preliminary calibration applied and initial comparison looks promising	10	

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in collaboration with CSV & CS trial UFTI/CIRPASS data through the pipeline, compare with manually reduced data. write report	STH	1/5/04	no progress	0	
	STH	1/6/04	held discussions with CS and CSV and agreed to limit tests to FIRES data then UFTI data. FIRES data made available to Simon Dye who will begin independent processing in July	10	
<b>9 Development and testing of standard catalogue products 4.0</b>					
<b>9.1 add in new measures requested</b>					<b>60</b>
finish testing and debugging new catalogue parameter measures	MJI	1/5/04	made some progress on generating better flux error estimates by adding in local sky error estimate	10	
	MJI	1/6/04	corrected a few bugs	10	
<b>9.2 refine astrometric calibration model</b>					<b>80</b>
<b>study atmospheric differential refraction in IR and write report</b>	DWE	1/5/04	no progress	0	
	DWE	1/6/04	report completed <a href="http://www.ast.cam.ac.uk/vdfs/docs/reports/refractir.ps.gz">http://www.ast.cam.ac.uk/vdfs/docs/reports/refractir.ps.gz</a>	100	
<b>9.3 generate model simulations of expected data</b>	STH, JMI		paused		<b>80</b>
<b>9.4 assess catalogue parameter reliability</b>					<b>70</b>
refine parameter error estimates and check for systematics in new parameters - finish in conjunction with 9.1	MJI	1/5/04	made some progress on generating better flux error estimates by adding in local sky error estimate	10	
	MJI	1/6/04	no progress	10	
<b>9.5 intercomparison of catalogue products with other packages</b>	JMI		paused		<b>60</b>
<b>9.6 Completeness and error estimates</b>					<b>50</b>
refine parameter error estimates and check for systematics - finish in conjunction with 9.1 and 9.4	JMI,MJI	1/5/04	no progress	0	
	JMI,MJI	1/6/04	no progress	0	
<b>9.7 documentation of catalogue software and products</b>					<b>55</b>
update catalogue products documentation	MJI	1/5/04	no progress	0	
	MJI	1/6/04	updated documentation (PODS)	10	
<b>10 Setup trial and run further processing pipeline 3.0</b>					
<b>10.2 development and assessment of PSF options 1,2</b>					<b>50</b>
produce robust version of code for PSF level 1	MJI	1/5/04	no progress	0	
	MJI	1/6/04	good progress on the PSF generation phase, awaiting final version	50	
produce prototype for PSF level 2	MJI	1/5/04	no progress	0	
	MJI	1/6/04	framework for code developed	10	
<b>10.3 develop 1D/2D PSF-deconvolved Sersic profile fits</b>					
assess GALFIT interactive package	MJI	1/5/04	no progress	0	
	MJI	1/6/04	investigated: found will be useful for a benchmark but probably too slow to be directly applicable. may be possible to modify it since written in C.	50	
<b>11 Photometric standards and calibration 3.0</b>					
<b>11.1 agree on primary standards</b>					<b>90</b>
complete narrow band filter calibration plan and update document	STH	1/5/04	no progress	0	
	STH	1/6/04	no progress	0	
<b>11.2 choose secondary standard fields</b>					<b>80</b>
finish updates to photom doc and circulate	STH	1/5/04	no progress	0	
	STH	1/6/04	no progress	0	
<b>11.7 assess extinction monitoring methods and develop measures</b>					<b>50</b>
complete investigation of UKIRT archive and write report	STH	1/5/04	no progress	0	

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		STH	1/6/04	no progress	0	
	simulate from night(s) data and estimate expected accuracy	STH	1/5/04	no progress	0	
		STH	1/6/04	no progress	0	
<b>12 Further development of DQC measures at summit and Cambr 2.0</b>						
<b>12.1 develop extra systematic noise measures</b>						<b>50</b>
	linked with detector characterisation	MJI	1/5/04	devised a robust (non-Fourier) method to quantify non-random noise. needs testing on real data	10	
		MJI	1/6/04	no progress	10	
<b>12.2 Refine current measures for WFCAM/VISTA data</b>						<b>20</b>
	linked with detector characterisation	JRL	1/5/04	small amount of progress with current engineering data - need much more and with a better illumination	10	
		JRL	1/6/04	no progress due to lack of appropriate engineering data	10	
<b>12.3 implement 2mass for throughput measurement</b>		JMI		paused		<b>75</b>
<b>12.4 master calibration frames for detector monitoring</b>						<b>35</b>
	assess and report if current methods work on engineering WFCAM data	JRL	1/5/04	engineering data received so far is not useful for most of these tests.	0	
		JRL	1/6/04	no progress due to lack of appropriate engineering data	0	
<b>13 Co-located list driven photometry 3.0</b>						
<b>13.2 develop basic WCS-based list driven photometer</b>						<b>90</b>
	investigate practicalities and implement agreed ICD for parameters - finish	MJI	1/5/04	no progress	0	
		MJI	1/6/04	have a working version. needs more debugging	50	
<b>13.3 externally driven WCS photometry and define parameter set</b>						<b>75</b>
	refine, test and debug list-driven parameter estimator - finish	MJI	1/5/04	no progress	0	
		MJI	1/6/04	have a working version. needs more debugging	50	
<b>14 Stacking and mosaicing 4.0</b>						
<b>14.1 develop benchmark simple stacking/mosaicing framework</b>		MJI		complete		<b>100</b>
<b>14.2 NN algorithm with simple rejection</b>		MJI		complete		<b>100</b>
<b>14.3 More sophisticated rejection dealing with pixellation</b>						<b>60</b>
	continue development of better spurion rejection allowing for pixellation - finish	MJI	1/5/04	no progress	0	
		MJI	1/6/04	devised methodology	10	
<b>14.4 Stacking with optimum weighting and defect rejection</b>						
	refine current weighting method, test and report on alternative schemes	MJI	1/5/04	discovered some interesting simple weighting schemes, of which the most promising are being implemented	10	
		MJI	1/6/04	being used in trial mode by IPHAS collaboration	10	
<b>15 Continuum subtraction and basic difference imaging 4.0</b>						
<b>15.1 Simple WCS-based subtraction techniques</b>		MJI		completed		<b>100</b>
<b>15.2 investigate and apply different interpolation methods</b>		MJI		completed		<b>100</b>
<b>15.3 develop adaptive kernel matching option</b>						<b>80</b>
	continue debugging and enhancements to adaptive kernel package	MJI	1/5/04	continuing. JMI has made a back-end trial user interface for this software to the INT WFS processed data database to progress this with on-demand on-the-fly tests.	10	
		MJI	1/6/04	no progress	10	
<b>16 Interpolation techniques and PSF modeling 4.0</b>						
<b>16.1 investigate alternative interpolation/PSF schemes</b>						<b>70</b>
	investigate PSF fitting algorithms and write report - finish	DWE	1/5/04	no progress	0	

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		DWE	1/6/04	no progress	0	
<b>16.2</b>	<b>implications for different stacking methods</b>					<b>20</b>
	quantify effects of interpolation on stacked image quality	MJI	1/5/04	no progress	0	
		MJI	1/6/04	compared bilinear and NN schemes - negligible effect for well sample data: undersampled next	10	
<b>16.3</b>	<b>implications for deriving catalogues and parameters</b>					<b>70</b>
	test PSF fitting using optical data and include results within above report from 16.1	DWE	1/5/04	no progress	0	
		DWE	1/6/04	no progress	0	
<b>16.4</b>	<b>oversampled PSF generation per detector</b>					<b>50</b>
	develop more robust oversampled PSF generator	DWE	1/5/04	no progress	0	
		DWE	1/6/04	PSF generator written and in testing phase	50	